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Attorney Docket No.: DEX-0117
Inventors: Salceda et al.
Serial No.: 09/721,183
Filing Date: November 22, 2000
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This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the claims:

Claims 1-2 (canceled)

Claim 3 (currently amended): A method for diagnosing the presence of breast cancer in a patient comprising:

(a) determining levels of Breast Cancer Specific Gene (BCSG) polynucleotide in cells, tissues or bodily fluids in a patient; and

(b) comparing the determined levels of BCSG polynucleotide with levels of BCSG polynucleotide in cells, tissues or bodily fluids from a normal human control, wherein an increase in determined levels of BCSG polynucleotide in said patient versus normal human control is associated with the presence of breast cancer and wherein the BCSG polynucleotide comprises SEQ ID NO:1, 2, ~~3~~ 4, 5, or 18 ~~or 20~~ or a polynucleotide which hybridizes under stringent conditions to the antisense sequence of SEQ ID NO: 1, 2, ~~3~~ 4, 5, or 18 ~~or 20~~.

Claim 4 (currently amended): A method of diagnosing metastases of breast cancer in a patient comprising:

(a) identifying a patient having breast cancer that is

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not known to have metastasized;

(b) determining Breast Cancer Specific Gene (BCSG) polynucleotide levels in cells, tissues, or bodily fluid from said patient; and

(c) comparing the determined BCSG polynucleotide levels with levels of BCSG polynucleotide in cells, tissue, or bodily fluid of a normal human control, wherein an increase in determined BCSG polynucleotide levels in the patient versus the normal human control is associated with breast cancer which has metastasized and wherein the BCSG polynucleotide comprises SEQ ID NO:1, 2, ~~3~~ 4, 5, or 18 ~~or~~ 20 or a polynucleotide which hybridizes under stringent conditions to the antisense sequence of SEQ ID NO: 1, 2, ~~3~~ 4, 5, or 18 ~~or~~ 20.

Claim 5 (currently amended): A method of staging breast cancer in a patient having breast cancer comprising:

- (a) identifying a patient having breast cancer;
- (b) determining Breast Cancer Specific Gene (BCSG) polynucleotide levels in a sample of cells, tissue, or bodily fluid from said patient; and
- (c) comparing determined BCSG polynucleotide levels with levels of BCSG polynucleotide in cells, tissues, or bodily fluid of a normal human control, wherein an increase in

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determined BCSG polynucleotide levels in said patient versus the normal human control is associated with breast cancer which is progressing and a decrease in the determined BCSG polynucleotide levels is associated with breast cancer which is regressing or in remission and wherein the BCSG polynucleotide comprises SEQ ID NO:1, 2, ~~3~~, 4, 5, or 18 ~~or 20~~ or a polynucleotide which hybridizes under stringent conditions to the antisense sequence of SEQ ID NO: 1, 2, ~~3~~, 4, 5, or 18 ~~or 20~~.

Claim 6 (currently amended): A method of monitoring breast cancer in a patient for the onset of metastasis comprising:

(a) identifying a patient having breast cancer that is not known to have metastasized;

(b) periodically determining levels of Breast Cancer Specific Gene (BCSG) polynucleotide in samples of cells, tissues, or bodily fluid from said patient; and

(c) comparing the periodically determined BCSG polynucleotide levels with levels of BCSG polynucleotide in cells, tissues, or bodily fluid of a normal human control, wherein an increase in any one of the periodically determined BCSG polynucleotide levels in the patient versus the normal human control is associated with breast cancer which has metastasized and wherein the BCSG polynucleotide comprises SEQ ID NO:1, 2, ~~3~~,

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4, 5, or 18 ~~or 20~~ or a polynucleotide which hybridizes under stringent conditions to the antisense sequence of SEQ ID NO: 1, 2, ~~3~~, 4, 5, or 18 ~~or 20~~.

Claim 7 (currently amended): A method of monitoring a change in stage of breast cancer in a patient comprising:

(a) identifying a patient having breast cancer;
(b) periodically determining levels of Breast Cancer Specific Genes (BCSG) polynucleotide in cells, tissues, or bodily fluid from said patient; and

(c) comparing the periodically determined BCSG polynucleotide levels with levels of BCSG polynucleotide in cells, tissues, or bodily fluid of a normal human control, wherein an increase in any one of the periodically determined BCSG polynucleotide levels in the patient versus the normal human control is associated with breast cancer which is progressing in stage and a decrease is associated with breast cancer which is regressing in stage or in remission and wherein the BCSG polynucleotide comprises SEQ ID NO:1, 2, ~~3~~, 4, 5, or 18 ~~or 20~~ or a polynucleotide which hybridizes under stringent conditions to the antisense sequence of SEQ ID NO: 1, 2, ~~3~~, 4, 5, or 18 ~~or 20~~.

Claims 8-17 (canceled)

Claim 18 (previously added): The method of claim 3 wherein

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the BCSG polynucleotide comprises SEQ ID NO: 1, 2 or 18.

Claim 19 (previously added): The method of claim 18 wherein the BCSG polynucleotide comprises SEQ ID NO:1.

Claim 20 (previously added): The method of claim 18 wherein the BCSG polynucleotide comprises SEQ ID NO:2.

Claim 21 (previously added): The method of claim 18 wherein the BCSG polynucleotide comprises SEQ ID NO:18.

Claim 22 (previously added): The method of claim 4 wherein the BCSG polynucleotide comprises SEQ ID NO: 1, 2 or 18.

Claim 23 (previously added): The method of claim 22 wherein the BCSG polynucleotide comprises SEQ ID NO:1.

Claim 24 (previously added): The method of claim 22 wherein the BCSG polynucleotide comprises SEQ ID NO:2.

Claim 25 (previously added): The method of claim 22 wherein the BCSG polynucleotide comprises SEQ ID NO:18.

Claim 26 (previously added): The method of claim 5 wherein the BCSG polynucleotide comprises SEQ ID NO: 1, 2 or 18.

Claim 27 (previously added): The method of claim 26 wherein the BCSG polynucleotide comprises SEQ ID NO:1.

Claim 28 (previously added): The method of claim 26 wherein the BCSG polynucleotide comprises SEQ ID NO:2.

Claim 29 (previously added): The method of claim 26 wherein

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the BCSG polynucleotide comprises SEQ ID NO:18.

Claim 30 (previously added): The method of claim 6 wherein the BCSG polynucleotide comprises SEQ ID NO: 1, 2 or 18.

Claim 31 (previously added): The method of claim 30 wherein the BCSG polynucleotide comprises SEQ ID NO:1.

Claim 32 (previously added): The method of claim 30 wherein the BCSG polynucleotide comprises SEQ ID NO:2.

Claim 33 (previously added): The method of claim 30 wherein the BCSG polynucleotide comprises SEQ ID NO:18.

Claim 34 (previously added): The method of claim 7 wherein the BCSG polynucleotide comprises SEQ ID NO: 1, 2 or 18.

Claim 35 (previously added): The method of claim 34 wherein the BCSG polynucleotide comprises SEQ ID NO:1.

Claim 36 (previously added): The method of claim 34 wherein the BCSG polynucleotide comprises SEQ ID NO:2.

Claim 37 (previously added): The method of claim 34 wherein the BCSG polynucleotide comprises SEQ ID NO:18.